



LIST OF LISTS

Consolidated List of Chemicals Subject to the Emergency Planning and Community Right-To-Know Act (EPCRA) and Section 112(r) of the Clean Air Act

- ⌄ EPCRA Section 302 Extremely Hazardous Substances
- ⌄ CERCLA Hazardous Substances
- ⌄ EPCRA Section 313 Toxic Chemicals
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Consolidated List of Chemicals Subject to the Emergency Planning and Community Right-to-Know Act (EPCRA) and Section 112(r) of the Clean Air Act

This consolidated chemical list includes chemicals subject to reporting requirements under the Emergency Planning and Community Right-to-Know Act (EPCRA), also known as Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA)¹, and chemicals listed under section 112(r) of the Clean Air Act (CAA). This consolidated list has been prepared to help firms handling chemicals determine whether they need to submit reports under sections 302, 304, or 313 of EPCRA and, for a specific chemical, what reports may need to be submitted. It will also help firms determine whether they will be subject to accident prevention regulations under CAA section 112(r). Separate lists are also provided of Resource Conservation and Recovery Act (RCRA) waste streams and unlisted hazardous wastes, and of radionuclides reportable under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA). These lists should be used as a reference tool, not as a definitive source of compliance information. Compliance information for EPCRA is published in the Code of Federal Regulations (CFR), 40 CFR Parts 302, 355, and 372. Compliance information for CAA section 112(r) is published in 40 CFR Part 68. This document is also available in a searchable database format at <http://www.epa.gov/ceppo/ap-otgu.htm>.

The chemicals on the consolidated list are ordered both by the Chemical Abstracts Service (CAS) registry number and alphabetically. For the list ordered by CAS number, categories of chemicals which generally do not have CAS registry numbers, but which are cited under CERCLA, are placed at the front of the list. EPCRA section 313 categories are placed at the end of the list with their 313 category code.

The lists include chemicals referenced under five federal statutory provisions, discussed below. More than one chemical name may be listed for one CAS number because the same chemical may appear on different lists under different names. For example, for CAS number 8001-35-2, the names toxaphene (from the section 313 list), camphechlor (from the section 302 list), and camphene, octachloro- (from the CERCLA list) all appear on this consolidated list. The chemical names on the consolidated lists generally are those names used in the regulatory programs developed under EPCRA, CERCLA, and CAA section 112(r), but each chemical may have other synonyms that do not appear on these lists.

(1) EPCRA Section 302 Extremely Hazardous Substances (EHSs)

The presence of EHSs in quantities at or above the Threshold Planning Quantity (TPQ) requires certain emergency planning activities to be conducted. The extremely hazardous substances and their TPQs are listed in 40 CFR Part 355, Appendices A and B. For section 302 EHSs, Local Emergency Planning Committees (LEPCs) must develop emergency response plans and facilities must notify the State Emergency Response Commission (SERC) and LEPC if they receive or produce the substance on site at or above the EHS's TPQ. Additionally if the TPQ is met, facilities with a listed EHS are subject to the reporting requirements of EPCRA section 311 (provide material safety data sheet or a list of covered chemicals to the SERC, LEPC, and local fire department) and section 312 (submit inventory

¹ This consolidated list does not include all chemicals subject to the reporting requirements in EPCRA sections 311 and 312. These hazardous chemicals, for which material safety data sheets (MSDS) must be developed under the Hazard Communication Standard (29 CFR 1910.1200), are identified by broad criteria, rather than by enumeration. There are over 500,000 products that satisfy the criteria. See 40 CFR Part 370 for more information.

form - Tier I or Tier II). The minimum threshold for section 311-312 reporting for EHS substances is 500 pounds or the TPQ, whichever is less.

TPQ. The consolidated list presents the TPQ (in pounds) for section 302 chemicals in the column following the CAS number. For chemicals that are solids, there may be two TPQs given (e.g., 500/10,000). In these cases, the lower quantity applies for solids in powder form with particle size less than 100 microns, or if the substance is in solution or in molten form. Otherwise, the 10,000 pound TPQ applies.

EHS RQ. Releases of reportable quantities (RQ) of EHSs are subject to state and local reporting under section 304 of EPCRA. EPA has promulgated a rule (61 FR 20473, May 7, 1996) that adjusted RQs for EHSs without CERCLA RQs to levels equal to their TPQs. The EHS RQ column lists these adjusted RQs for EHSs not listed under CERCLA and the CERCLA RQs for those EHSs that are CERCLA hazardous substances (see the next section for a discussion of CERCLA Rqs).

Note that ammonium hydroxide is not covered under section 302; the EHS RQ is based on anhydrous ammonia. Ammonium hydroxide (which is also known as aqueous ammonia) is subject to CERCLA, with its own RQ.

(2) CERCLA Hazardous Substances

Releases of CERCLA hazardous substances, in quantities equal to or greater than their reportable quantity (RQ), are subject to reporting to the National Response Center under CERCLA. Such releases are also subject to state and local reporting under section 304 of EPCRA. CERCLA hazardous substances, and their reportable quantities, are listed in 40 CFR Part 302, Table 302.4. Radionuclides listed under CERCLA are provided in a separate list, with RQs in Curies.

RQ. The CERCLA RQ column in the consolidated list shows the RQs (in pounds) for chemicals that are CERCLA hazardous substances. Carbamate wastes under RCRA that have been added to the CERCLA list with statutory one-pound RQs are indicated by an asterisk ("*") following the RQ.

Metals. For metals listed under CERCLA (antimony, arsenic, beryllium, cadmium, chromium, copper, lead, nickel, selenium, silver, thallium, and zinc), no reporting of releases of the solid form is required if the mean diameter of the pieces of the solid metal released is greater than 100 micrometers (0.004 inches). The RQs shown on the consolidated list apply to smaller particles.

Note that the consolidated list does not include all CERCLA regulatory synonyms. See 40 CFR Part 302, Table 302.4 for a complete list.

There have been a few additions and deletions to Table 302.4 since this document was last updated (November 1998). Hazardous wastes K174 and K175 have been added to this list. Removed from Table 302.4 are caprolactam (CAS 105-60-2), 2,4,6-tribromophenol (CAS 118-79-6), and K140 floor sweepings, off-specification products and spent filtermedia from the production of 2,4,6-tribromophenol.

(3) CAA Section 112(r) List of Substances for Accidental Release Prevention

Under the accident prevention provisions of section 112(r) of the CAA, EPA developed a list of 77 toxic substances and 63 flammable substances. Threshold quantities (TQs) were established for these substances. The list and TQs identify processes subject to accident prevention regulations. The list of substances and TQs and the requirements for risk management programs for accidental release prevention are found in 40 CFR Part 68. This consolidated list includes both the common name for each listed chemical under section 112(r) and the chemical name, if different from the common name, as separate listings.

The CAA section 112(r) list includes several substances in solution that are covered only in concentrations above a specified level. These substances include ammonia (concentration 20% or greater) (CAS number 7664-41-7); hydrochloric acid (37% or greater) (7647-01-0); hydrogen fluoride/hydrofluoric acid (50% or greater) (7664-39-3); and nitric acid (80% or greater) (7697-37-2). Hydrogen chloride (anhydrous) and ammonia (anhydrous) are listed, in addition to the solutions of these substances, with different TQs. Only the anhydrous form of sulfur dioxide (7446-09-5) is covered. These substances are presented on the consolidated list with the concentration limit or specified form (e.g., anhydrous), as they are listed under CAA section 112(r). Flammable fuels used as a fuel or held for sale as a fuel at a retail facility are not subject to the rule.

TQ. The CAA section 112(r) TQ column in the consolidated list shows the TQs (in pounds) for chemicals listed for accidental release prevention. The TQ applies to the quantity of substance in a process, not at the facility as a whole.

(4) **EPCRA Section 313 Toxic Chemicals**

Emissions, transfers, and waste management data for chemicals listed under section 313 must be reported annually as part of the community right-to-know provisions of EPCRA (40 CFR Part 372).

Section 313. The notation "313" in the column for section 313 indicates that the chemical is subject to reporting under section 313 and section 6607 of the Pollution Prevention Act under the name listed. In cases where a chemical is listed under section 313 with a second name in parentheses or brackets, the second name is included on this consolidated list with an "X" in the section 313 column. An "X" in this column also may indicate that the same chemical with the same CAS number appears on another list with a different chemical name. Since the last updating of the list in November 1998, a number of reporting thresholds have changed. These include reporting thresholds for 18 chemicals that meet the EPCRA section 313 criteria for persistence and bioaccumulation, as well as lead and lead compounds (except lead contained in stainless steel, brass, and bronze alloys). Chemicals that have had reporting thresholds changed are marked with a " ^ " symbol on the list. The revised thresholds are listed at the end of this section.

Diisocyanates, Dioxins and Dioxin-like Compounds, and PACs. In the November 30, 1994, expansion of the section 313 list, 20 specific chemicals were added as members of the diisocyanate category, and 19 specific chemicals were added as members of the polycyclic aromatic compounds (PAC) category. In October 1999, EPA added a category of dioxin and dioxin-like compounds that includes 17 specific chemicals. These chemicals are included in the CAS order listing on this consolidated list. The symbol "#" following the "313" notation in the section 313 column identifies diisocyanates, the symbol "!" identifies the dioxin and dioxin-like compounds, and the symbol "+"

identifies PACs, as noted in the Summary of Codes. Chemicals belonging to these categories are reportable under section 313 by category, rather than by individual chemical name.

Ammonium Salts. The EPCRA section listing for ammonia includes the following qualifier “includes anhydrous ammonia and aqueous ammonia from water dissociable ammonium salts and other sources; 10 percent of total aqueous ammonia is reportable under this listing”. The qualifier for ammonia means that anhydrous forms of ammonia are 100% reportable and aqueous forms are limited to 10% of total aqueous ammonia. Therefore, when determining threshold and releases and other waste management quantities all anhydrous ammonia is included but only 10% of total aqueous ammonia is included. Any evaporation of ammonia from aqueous ammonia solutions is considered anhydrous ammonia and should be included in threshold determinations and release and other waste management calculations.

In this document ammonium salts are not specifically identified as being reportable EPCRA section 313 chemicals. However, water dissociable ammonia salts, such as ammonium chloride, are reportable if they are placed in water. When ammonium salts are placed in water, reportable aqueous ammonia is manufactured. As indicated in the ammonia qualifier, all aqueous ammonia solutions from water dissociable ammonium salts are covered by the ammonia listing. For example, ammonium chloride is a water dissociable ammonium salt and reportable aqueous ammonia will be manufactured when it is placed in water.

Unlike other ammonium salts, ammonium hydroxide is specifically identified as being a reportable EPCRA section 313 chemical. This is because the chemical ammonium hydroxide (NH₄OH) is a misnomer. It is a common name used to describe a solution of ammonia in water (i.e., aqueous ammonia), typically a concentrated solution of 28 to 30 percent ammonia. EPA has consistently responded to questions regarding the reportability of these purported ammonium hydroxide solutions under the EPCRA Section 313 ammonia listing by stating that these are 28 to 30 percent solutions of ammonia in water and that the solutions are reportable under the EPCRA Section 313 ammonia listing. For a more detailed discussion, see page 34175 of the Federal Register final rule of June 30, 1995 (60 FR 34172). (See also EPA’s EPCRA section 313, *Guidance for Reporting Aqueous Ammonia*, EPA 745-R-00-005, www.epa.gov/TRI)

Additions. Added to the list of toxic chemicals subject to reporting under EPCRA section 313 are seven chemicals and two chemical compound categories. These are:

Chemicals

	CAS
1) benzo(g,h,i)perylene	191242
2) benzo(j,k)fluorine (as a member of the PACs category)	206440
3) 3-methylcholanthrene (as a member of the PACs category)	56495
4) octachlorostyrene	29082744
5) pentachlorobenzene	608935
6) tetrabromobisphenol A	79947
7) vanadium (except when contained in an alloy)	7440622

Chemical Categories

	Category Code
1) vanadium compounds	N770

2) dioxin and dioxin like compounds (Manufacturing; and the processing or otherwise use of dioxin and dioxin like compounds if the dioxin and dioxin-like compounds are present as contaminants in a chemical and if they were created during the manufacturing of that chemical) N150

Stayed Chemicals. There are three EPCRA section 313 chemicals that are listed in the CFR but for which the Agency has issued an administrative stay that excludes them from reporting until the stays are lifted. These chemicals, identified by “313s” in the Sec. 313 table column, are methyl mercaptan (CAS number 74-93-1), hydrogen sulfide (CAS number 7783-06-4), and 2,2-dibromo-3-nitrilopropionamide (CAS number 10222-01-2). Check the TRI website (www.epa.gov/triexplorer) for updated regulatory information.

TRI Thresholds. Reporting under EPCRA section 313 is triggered by the quantity of a chemical that is manufactured, processed, or otherwise used during the calendar year. For most TRI chemicals, the thresholds are 25,000 pounds manufactured or processed or 10,000 pound otherwise used. EPA has recently lowered the reporting thresholds for certain chemicals and chemical categories that meet the criteria for persistence and bioaccumulation. The following list provides the thresholds for these chemicals(in pounds unless otherwise noted):

Chemical Name or Category	CAS Number	Threshold (lbs)
Aldrin	309-00-2	100
Benzo(g,h,i)perylene	191-24-2	10
Chlordane	57-74-9	10
Dioxin and dioxin-like compound category (manufacturing; and processing or otherwise use of dioxin and dioxin-like compounds if they are present as contaminants in a chemical and if they were created during the manufacture of that chemical)	NA	0.1 gram
Heptachlor	76-44-8	10
Hexachlorobenzene	118-74-1	10
Isodrin	465-73-6	10
Lead and lead compounds except lead contained in stainless steel, brass, and bronze alloys (applies to reporting for 2001(due July 2002) and later)	NA	100
Methoxychlor	72-43-5	100
Octachlorostyrene	29082-74-4	10
Pendimethalin	40487-42-1	100
Pentachlorobenzene	608-93-5	10
Polycyclic aromatic compounds category	NA	100
Polychlorinated biphenyls (PCBs)	1336-36-3	10

Tetrabromobisphenol A	79-94-7	100
Toxaphene	8001-35-2	10
Trifluralin	1582-09-8	100
Mercury	7439-97-6	10
Mercury compounds	NA	10

(5) Chemical Categories

The CERCLA and EPCRA section 313 lists include a number of chemical categories as well as specific chemicals. Categories appear on this consolidated list at the end of the CAS number listing. Specific chemicals listed as members of the diisocyanates, dioxin and dioxin-like compounds, and PAC categories under EPCRA section 313 (see section (4) above) are included in the list of specific chemicals by CAS number, not in the category listing. The chemicals on the consolidated list have not been systematically evaluated to determine whether they fall into any of the CERCLA listed categories, but EPA has attempted to identify those listed chemicals that are clearly reportable under one or more of the EPCRA section 313 categories.

Some chemicals not specifically listed under CERCLA may be subject to CERCLA reporting as part of a category. For example, strychnine sulfate (CAS number 60-41-3), listed under EPCRA section 302, is not individually listed on the CERCLA list, but is subject to CERCLA reporting under the listing for strychnine and salts (CAS number 57-24-9), with an RQ of 10 pounds. Similarly, nicotine sulfate (CAS number 65-30-5) is subject to CERCLA reporting under the listing for nicotine and salts (CAS number 54-11-5, RQ 100 pounds), and warfarin sodium (CAS number 129-06-6) is subject to CERCLA reporting under the listing for warfarin and salts, concentration >0.3% (CAS number 81-81-2, RQ 100 pounds). Note that some CERCLA listings, although they include CAS numbers, are for general categories and are not restricted to the specific CAS number (e.g., warfarin and salts). The CERCLA list also includes a number of generic categories that have not been assigned RQs; chemicals falling into these categories are considered CERCLA hazardous substances, but are not required to be reported under CERCLA unless otherwise listed under CERCLA with an RQ.

A number of chemical categories are subject to EPCRA section 313 reporting. Certain chemicals listed under EPCRA section 302, CERCLA, or CAA section 112(r) may belong to section 313 categories. For example, mercuric acetate (CAS number 1600-27-7), listed under section 302, is not specifically listed under section 313, but is reportable under the section 313 "Mercury Compounds" category (no CAS number). Listed chemicals that have been identified as being reportable under one or more EPCRA section 313 categories are identified by "313c" in the Sec. 313 table column.

(6) RCRA Hazardous Wastes

The consolidated list includes specific chemicals from the RCRA P and U lists only (40 CFR 261.33). This listing is provided as an indicator that companies may already have data on a specific chemical that may be useful for EPCRA reporting. It is not intended to be a comprehensive list of RCRA P and U chemicals. RCRA hazardous wastes consisting of waste streams on the F and K lists, and wastes exhibiting the characteristics of ignitability, corrosivity, reactivity, and toxicity, are provided in a

separate list. This list also includes carbamate wastes added to the CERCLA list with one-pound statutory RQs (indicated by an asterisk ("*") following the RQ). The descriptions of the F and K waste streams have been abbreviated; see 40 CFR Part 302, Table 302.4, or 40 CFR Part 261 for complete descriptions.

RCRA Code. The letter-and-digit code in the RCRA Code column is the chemical's RCRA hazardous waste code.

Summary of Codes

- ^ Reporting threshold has changed since November 1998.
- + Member of PAC category.
- # Member of diisocyanate category.
- X Indicates that this is a second name for a chemical already included on this consolidated list. May also indicate that the same chemical with the same CAS number appears on another list with a different chemical name.
- * RCRA carbamate waste; statutory one-pound RQ applies until RQs are adjusted.
- ** This chemical was identified from a Premanufacture Review Notice (PMN) submitted to EPA. The submitter has claimed certain information on the submission to be confidential, including specific chemical identity.
- *** Indicates that no RQ is assigned to this generic or broad class, although the class is a CERCLA hazardous substance. See 50 *Federal Register* 13456 (April 4, 1985). Values in Section 313 column represent Category Codes for reporting under Section 313.
- c Although not listed by name and CAS number, this chemical is reportable under one or more of the EPCRA section 313 chemical categories.
- s Indicates that this chemical is currently under an administrative stay of the EPCRA section 313 reporting requirements, therefore, no Toxics Release Inventory reports are required until the stay is removed.
- ! Member of the dioxin and dioxin-like compounds category.

